

CLAIMS

1. A molding device for blow-molding or stretch-blow-molding containers from heated thermoplastic preforms, said device comprising at least one mold (1) comprising at least two half-molds (1a, 1b) that can be moved with respect to each other between an open position in which they are parted from one another and a closed position in which they are firmly pressed against one another via collaborating respective bearing faces (2a, 2b) defining a parting line (3), locking means (14) being provided to lock the two half-molds (1a, 1b) in the closed position, characterized in that:
- 15 - the locking means (14) comprise two lock elements (15, 16) mounted respectively on the two half-molds (1a, 1b) along the edges of the respective bearing faces and extending substantially over the entire height of said half-molds,
 - 20 - each lock element (15, 16) comprises a multiplicity of hook-shaped projecting fingers (17, 18) distributed over the entire height of the lock element and which, on one lock element (15) face away from the bearing face of the corresponding half-mold and, on the other lock element (16) face toward the bearing face of the corresponding half-mold, said fingers (17, 18) of each lock element being substantially parallel and separated from one another by spacings (19, 20) the individual heights of which are slightly greater than the individual heights of the fingers,
 - one of the lock elements (15) being mounted fixedly on the corresponding half-mold (1a) and the other lock element (16) being mounted, on the other half-mold (1b), such that it can move so that it can be slid parallel to the axis of the mold,

- and actuating means (23) functionally associated with said moving lock element (16) in order to move the latter between two positions, namely:

- 5 • a first position or unlocked position in which the fingers (18) of the moving lock element (16) are positioned respectively level with the spacings (19) between the fingers (17) of the fixed lock element (15), in which position the two half-molds are not locked together, and
- 10 • a second position or locked position in which, with the two half-molds (1a, 1b) pressed firmly together in the closed position, the moving lock element (16) is moved parallel to the axis of the mold so that its fingers (18) engage
- 15 respectively with the fingers (17) of the fixed lock element (15), in which position the two half-molds are locked together in their closed position.

20 2. The molding device as claimed in claim 1, characterized in that the number of fingers (17, 18) is as high as possible in relation to the mechanical strength of said fingers, whereby the height of the spacings (19, 20) between the fingers (17, 18) and

25 therefore the travel of the moving lock element between its locked and unlocked positions are as low as possible.

30 3. The molding device as claimed in claim 1 or 2, characterized in that the moving lock element (16) is supported, on the corresponding half-mold (1b), by a guide member (21) substantially parallel to the axis of the mold, on which member said lock element (16) is slidably mounted.

35 4. The molding device as claimed in claim 3, characterized in that the guide member is a rod (21) secured to the half-mold, on which rod the moving lock element is slidably mounted, but prevented from

rotating.

5. The molding device as claimed in any one of claims 1 to 4, characterized in that the actuating means (23) for actuating the moving lock element (16) comprise:

- a return spring (24) able to return said lock element (16) to its aforesaid first position, and
- 10 - a positive actuating member (25) secured to said moving lock element (16) and able to act positively thereon in order to move it, against the return force of the spring (24), toward its second position.

15 6. The molding device as claimed in claim 5, characterized in that the positive actuating member (25) is able to be controlled, when the two half-molds (1a, 1b) are in the closed position, by the other half-
20 mold (1a).

7. The molding device as claimed in any one of claims 1 to 6, characterized in that the fixed lock element (15) forms an integral part of the half-mold
25 (1a).

8. The molding device as claimed in any one of claims 1 to 6, characterized in that the fixed lock element (15) is produced in the form of a part (27, 17)
30 secured fixedly to the corresponding half-mold (1a).

9. The molding device as claimed in any one of claims 1 to 8, characterized in that the guide member (21) that guides the moving lock element (16) is
35 supported directly by the corresponding half-mold (1b).

10. The molding device as claimed in any one of claims 1 to 8, characterized in that the guide member (21) that guides the moving lock element (16) is fixed

to an intermediate plate (29), itself fixed to the half-mold (1b).

11. The molding device as claimed in any one of
5 claims 1 to 10, characterized in that the mold (1) is
of the hinged type with the two half-molds (1a, 1b)
articulated to one another in terms of rotation on a
shaft (8) substantially parallel to one side of the
parting line (3), and in that said locking means (14)
10 are provided on the opposite side of said shaft (8)
about which the two half-molds (1a, 1b) rotate relative
to one another.

12. The molding device as claimed in any one of
15 claims 1 to 11, in which each half-mold (1a, 1b)
comprises a shell holder (5a, 5b) to which there is
internally fixed a shell (6a, 6b) equipped with a
molding half-cavity (4a, 4b) the parting line (3) being
defined by the two shells pressed together when the
20 mold is in the closed position, characterized in that
the locking means (14) are supported by the two shell-
holders (5a, 5b).